

## A GREAT INVENTION

**J. B. Cook's Sand Jail—The Only Certain Security Against Rogues and Ras-**

**A Complete Jail—The People May  
Last be Made Safe Against the  
Thieves and Housebreaking  
Rings Condemned for  
Their Crimes—Etc**

The problem of securing prisoners has been acknowledged in all times a difficult one to solve; so difficult that the minds of political economists have been

exercised upon it as well as the minds of sheriffs and police officials; and up to the present time most of those concerned confess the problem not solved yet. It has a double aspect—the danger of insecurity and the cost of effecting comparative security. While there are so many criminals in the world, and so much that is valuable to be protected

from the violent hands of the enemies of social order, of property, and of life it becomes a matter of grave importance to procure and establish proper means for the perfect security of the criminal classes—means that will be an effective

aid to the machinery of the law. The tax-payers are frequently paid by long recitals of escapades, accompanied by longer and more alarming items of expense incurred in the vain attempt to secure such classes after capture and conviction. It has frequently been the boast of skillful and daring thieves that no jail could be constructed strong

enough to keep them confined for any considerable length of time. Why the inventive genius that evolved almost miracles from the forces of nature for the benefit and pleasure of man should so long have

neglected the solution of the problem a curious idiosyncrasy. The problem became pressing, and the good people of the world feeling their taxes increasing from year to year to pay the accumulating expenses attending the retention of criminals in earth-household buildings

called jails, began to make appeals for relief and to cry out in a sort of helpless agony, "who will show us any good jails?" that the earnest attention of inventive genius was at length directed to a solution of the problem, and we think

successfully. The interested reader of this will not need to call much of his patience into requisition to carry him through the few lines following, in which an attempt is made to give an idea of the new and meritorious inven-

tion of a Memphis man in the way of jails, which is not inferior in conception, in practicability and in general application, to Davis' safety-lamp, though of a different order. We know how difficult it is to give

proper praise of any new and unthought-of invention, but feel convinced that the simplicity of the one in question will enable us to impart a sufficiently clear comprehension of it to the reader to draw from him an immediate acknowledgement of its extraordinary

**A COMPLETE JAIL**

in every respect is what we propose to describe. Yesterday there was an exhibition at Randle, Heath & Livermore's, 200 Broadway, of a complete jail

Marke square, a sufficiently large and effectively operating model of the prison. Two minutes inspection of it was enough. The barrier that has been found most effectual in keeping out cannon balls—and is the agency which th

inventor has made use of to secure, without the possibility of escape, all criminals confined within its indestructible walls. The school or nursery song, we don't recollect which, says that little drops of water make the sea, and little grains of

said made the mountains. Mr. J. H. Cook has constructed a jail out of sand which is stronger than the walls of Newgate, and impassable as the walls that environed the prisoner of Chillon. The working model at the foundry mentioned, is merely a section.

ing material, is usually a certain wall, which may be any thickness from six or eight inches up to five feet, hollow in the center, the two sides—inside and outside—constructed of any material, *papier-mache*, pasteboard, thin siding, tin or leather. The center

filled with fine dry sand, which runs like water. Now, take a wall twenty feet high, with a foot thickness of such sand with, in it, make a hole in it through the inner shell--and the sand naturally and inevitably will run out.

and keep running. If you are inclosed in a small space the sand must be either stopped or it will keep running until the room or cell is filled up to the height of the hole. If you attempt to pull it away from the aperture, you only give the quick and lively mass a chance to en-

the more freely. Keep removing it from the hole, and the sand will finally fill the apartment and the hole is still ready to vomit forth more. How can the inmate escape? Impossible. A prisoner confined in a cell surrounded

by such walls would take a lively interest in preserving them safe from injury for should a break occur (during his sleep the sand might run down and smother him. The invention we are now discussing actually makes it no

only the duty but the interest of the prisoner to see that the walls of his prison are sound and kept from harm. It is either prison or worse punishment with him. The acute reader may here say that if the prisoner wishes to commit suicide—which some prisoners

int alone—which some prophets occasionally—this construction furnishes him the ready means of carrying out his purpose. Not so, as you will presently see. There are such things as water closets, machines made to "go," tell the time, ring the bell at stated periods in

the force of falling water. There are great mill-stones turned rapidly by the same power. Corn and wheat are ground, the machinery making such a noise that no one except the miller can hear anything while in the vicinity of

the rapidly revolving machinery. Sand is similar in its operation to water; it runs, it carries weight; it is a force. Mr. Cook's genius has adapted this characteristic of sand for ministering to his wants in constructing his impregnable fort. Still, in this matter he has not

inside jail. When the wretched and foolish prisoner makes a hole in the wall of his cell the sand in the whole concern begins to move with a force proportioned to the area of the aperture and the rapidity of the flow. This force sets heavy balls in motion, which are connected

with alarm-bells, placed in suitable spots in the wall. The *modus operandi* is plain and charmingly simple. The hole is made, the sand flows, the whole volume of sand is set in motion, the balls are disturbed, the connections

with the alarm-bells receive the impression, and all the gongs in the jail begin to ding-dong, tok-slok, rip-rattle and screech, making such an alarm that not only the guard in the jail—as well as the inmates are roused, but half the people in the town are wakened. These all

there is danger at the jail, and in five minutes the precincts of the prison are covered with people, the question then will be, not so much to prevent the escape of a desperado as to save him from a deluge of sand flowing into his cell.

The genius of Mr. Cook has converted every grain of sand into an armed sentinel. Having reached this interesting point in the elucidation of this most effective and wonderful contrivance, the reader may naturally inquire how in

The event of such a catastrophe as the one just mentioned, the lost sand could be placed in the interior of the wall again. That has been provided for. On the top of the building bins or hoppers are placed, filled with the material, connected with the outside of the structure.

the interior of the walls, and supplied with suitable stop-cocks. From these the walls, if half emptied, could be filled in a very short time, then soldered up, bricked up, nailed up or pasted up, as the necessities of its particular construction would require. The sand already in

then were required. The sand already in the cell filled into bags, placed on the shoulders of the idiot who attempted to escape, and by him carried up to refill the bins and hoppers above, thus supplying the means for his own more secure and continued retention. The door

to the cells are calculated to open out on a common passage. They are supplied with a lock, also new in design and part of the patent of Mr. Cook. The bolt is an inch and a half stroke, and two inches vertical depth. At one turn of

The key is about half an inch; a second turn sends it out its full length, making a thoroughly secure fastening. The other details of the prison are in keeping with the part of the design already



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